



The SHARed RESources (SHARES) High Frequency (HF) Radio Program provides a single, interagency voice and data emergency message handling system by bringing together existing HF radio resources of Federal, state and industry organizations when normal communications are destroyed or unavailable for the transmission of information supporting national security and emergency preparedness (NS/EP). SHARES is one of a number of initiatives sponsored by the National Communications System (NCS) in its role of planning and preparing for NS/EP. SHARES is available on a 24-hour basis to support intra- or interagency mission requirements. Use of the flagword "SHARES" is all that is needed to get the critically important information through.

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Emergency Operations

Seattle Earthquake. At 10:54 a.m. (PST) on February 28, 2001, a 6.8 magnitude earthquake struck approximately 35 miles southwest of Seattle, Washington. Sporadic power and communications

outages, cell phone overloads, and service disruptions were experienced during the critical first hours of the emergency. Within minutes of the earthquake, the S H A R E S Coordination Net was receiving Station Availability Reports



Seattle Earthquake, February 28, 2001

from SHARES stations within the disaster area and around the country. The FBI, Defense Logistics Agency, Federal Highways Administration, and the American Red Cross reported passing SHARES messages during the first hours when telephone service throughout the region was degraded. In a post-activity report, Mr. Alan Murdock, Defense Logistics Agency (SCS Northwest), Seattle, WA, commented: *"The Pacific Northwest dodged a bullet this time. While we did have infrastructure damage, the impact was minimal. I felt very comforted by the fact that there were many SHARES stations that could assist if the damage assessments were overwhelming. I want to express my appreciation to all the stations that stood up to provide assistance."*

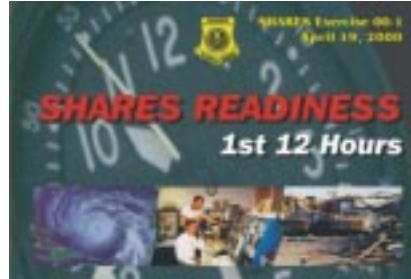
Hurricane Debby. The SHARES Coordination Network was changed from Operational Level 3 to Operational Level 2 at 12:00 p.m. (EDT), August 22, 2000, in response to Hurricane Debby. During the 49-hour operation, 263 Station Availability Reports were received from stations in 40 states, the District of Columbia, Puerto Rico, and the Virgin Islands. The SCN returned to Operational Level 3 at 1:00 p.m. (EDT) August 24, 2000. Although SHARES message traffic was limited to only a few situation reports, SHARES demonstrated its readiness and capability to respond immediately, and to sustain support during an emergency. Station personnel supporting this operation are to be commended for an outstanding job. SHARES Confirmation Card 013 was issued to station and emergency response personnel who participated in the operation.

Confirmation Cards Issued

Acknowledging participation in SHARES operations and providing participating stations an after-action report have always been important components of SHARES. The SHARES Confirmation Card supports both program components. In the past year, the SHARES HF Interoperability Working Group issued Confirmation Cards for the SHARES Y2K Operation, SHARES Exercise 00-1, Hurricane Debby and Exercise 00-2, Exercise 00-3, Presidential Inauguration 2001, and the NAOC-SCN Exercise.



011 - SHARES Y2K Operation



012 - SHARES Exercise 00-1



013 - Hurricane Debby and SHARES Exercise 00-2



014 - SHARES Exercise 00-3



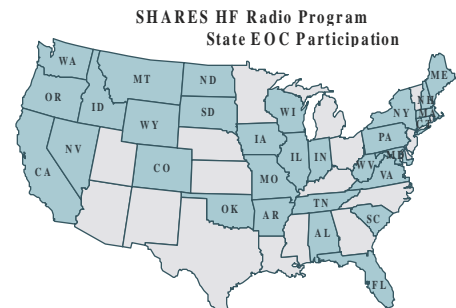
015 - Presidential Inauguration 2001



016 - NAOC-SCN Exercise

SHARES Confirmation Cards are issued to stations that participate in an operation. Each lists the agency and call signs of the stations that supported the operation. Confirmation Card 001, SHARES Program Map, was issued to all SHARES stations August 1998. Sixteen cards have been issued to date.

Industry Expands Roll in SHARES. The National Communications System (NCS) has expanded the number of *National Telecommunications Coordinating Network - High Frequency (NTCN-HF)* radio stations participating in SHARES. With the expansion, all of the major telephone service providers are members of SHARES. The NTCN-HF serves as the backup communications network supporting the National Telecommunications Management Structure (NTMS), a structure responsible for restoring the nation's telecommunications resources in the aftermath of a national security emergency or disaster. The NTCN-HF network is managed by the NCS and is comprised of 22 industry and 34 government HF radio stations located throughout the country. NTCN-HF industry participation in SHARES includes: Ameritech, AT&T, Bell South, Cincinnati Bell, Pacific Bell, Southern New England Telephone, Sprint, Southwest Bell, Qwest, and Verizon.



This SHARED RESources (SHARES) HF Radio Program Bulletin 01-13 is intended to keep participating SHARES HF radio station personnel and users of SHARES informed of program activities, operations, and items of interest in the area of HF radio and Federal HF radio interoperability. SHARES bulletins are prepared by the SHARES HF Interoperability Working Group, and distributed by the Chief, Operations Division (N3) Office of the Manager, National Communications System. Comments, or information for future bulletins, may be submitted to your SHARES HF Interoperability Working Group representative or to the SHARES Project Office, Office of the Manager, National Communications System, Operations Division (OMNCS-N3), Arlington, VA 22204-2198 or e-mail at 'shares@ncs.gov'.

News & Notes...

☛ Electronic Administration. SHARES Exercise Notices and SCN Operational Level Change Notices are distributed electronically. These notices are distributed to Emergency Response Personnel using Adobe PDF format, and to station and pager-holder personnel using a full text format. All notices are also posted on the SHARES home page (www.ncs.gov/~shares/shares.htm) and on the SHARES BBS. Seventy-two percent of the SHARES stations receive the notices electronically. Stations are encouraged to send e-mail addresses to 'shares@ncs.gov' or to the SHARES Project Office at 'hfmail@shareshf.com.'



SHARES Directory Available on CD-ROM

☛ NCSH 3-3-1, SHARES Directory. The 11th edition of NCSH 3-3-1, SHARES Directory, is scheduled for publication this fall. As with the current edition, dated July 11, 2000, the new Directory will be distributed in CD-ROM and paper format. If you are not already receiving the Directory on CD-ROM, contact the SHARES Project Office at 'hfmail@shareshf.com.'

☛ SHARES Emergency Planning. Thirty-two Federal, state, and industry organizations include SHARES in their emergency planning documents as a contingency communications capability during all-hazards situations. For assistance in including SHARES in your plans, contact the SHARES Project Office.

☛ Commercial Use of HF Band. The SHARES High Frequency Interoperability Working Group is monitoring a request before the FCC to extend a nationwide two-way, short-data messaging HF system originally granted to Terion, Inc., (formally Flash Comm, Inc) in 1997 for tracking commercial vehicles. Besides extending the 1997 authorization beyond its original five year period, the request expands the number of HF frequencies used in the tracking system to 2,638, increases the authorized HF energy transmitted, and increases the number of per hour transmissions. The Strategic Spectrum Planning Committee, Department of Commerce, is representing the Federal government on this matter.

☛ SHARES Leadership Changes. Leadership changes have occurred at several levels of the SHARES program. Mr. Ronald Thomas, Operations Division, Office of the Manager, National Communications System, OMNCS, has replaced CAPT Lynne M. Hicks, USN, as Chairman, SHARES HF Interoperability Working Group. As Chairman, Mr. Thomas is responsible for the day-to-day operations, administration and readiness of SHARES. On April 2, 2001, Mr. Brenton C. Greene succeeded Ms. Diann L. McCoy as the tenth NCS Deputy Manager since the organization was established in 1963. As the Chief Operating Officer of the NCS, Mr. Greene is responsible for ensuring that the NCS assists the President and the Executive Office of the President in exercising wartime and non-wartime emergency telecommunications.



Ray Callahan, FHWA, SHARES BBS Station, Ames, IA

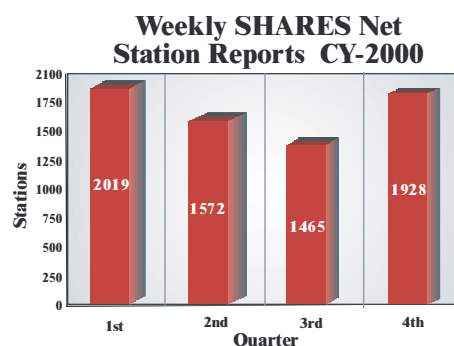
☛ Participation. With the recent addition of the NCS NTCN-HF radio stations, 85 Federal and federally affiliated organizations contribute HF resources to SHARES. One thousand fifty-four stations, located in all 50 states, the District of Columbia, and at 15 overseas locations, currently participate in SHARES. Copies of the SHARES Workbook are also in the hands of over two hundred Federal emergency personnel.

Readiness

On-air operations are conducted to improve SHARES capability to respond quickly and efficiently during the critical first hours of an emergency. SHARES readiness operations include nationwide exercises, the Weekly SHARES Net, and support operations conducted at the request of member agencies.

Weekly SHARES Net

The *Weekly SHARES Net* is conducted on the SHARES Coordination Network each Wednesday from 1600Z to 1800Z. The net provides an excellent opportunity for station personnel to improve on-air operating skills by submitting a Station Availability Report to any one of the ten SHARES Coordination Stations or five Regional Coordination Stations. The report may be submitted on SCN Channel 1 (regional voice), SCN Channel 2, (national voice), SCN Channels 3 to 8 (ALE), and SCN Channels 9 and 10 (SHARES BBS). Six thousand nine hundred eighty-four stations submitted Availability Reports during the CY-2000 Weekly SHARES Nets.



SHARES Nationwide Exercises

The SHARES HF Interoperability Working Group conducts three nationwide exercises each year. The exercises provide station personnel training on SHARES message formatting and operating procedures, expand awareness of SHARES within the Federal emergency response community, and promote interoperability of Federal HF radio systems by assessing the capabilities of new HF technologies.

SHARES Exercise 00-1 focused on the critical first hours following a major disaster. Conducted over a 15 hour period on April 19, 2000, the exercise was structured into five 3-hour blocks. The first hour of each block was designed for voice activity, the second hour for SHARES BBS activity, and the third hour for ALE activity. Two hundred thirty stations, located in 48 states, and representing 32 entities participated. Station Availability Reports totaled 698. Confirmation Card 012 was issued.

A category G5 geomagnetic storm which impacts the northeast U.S. causing widespread power system grid failures and communications outages was used as the scenario for *SHARES Exercise 00-2*. Two hundred stations, representing 30 Federal, state and industry entities participated in the 12-hour exercise conducted on August 30, 2000. Forty-one states and the District of Columbia were represented. Confirmation Card 013 was issued for this operation.



Wilbur Goll, SCS Central, Shawnee, KS

SHARES Exercise 00-3 was conducted during four 4-hour windows over the period 241300Z Oct 00 to 260300Z Oct 00. Voice operations were emphasized during the first two hours of each window; BBS operations during the 3rd hour; and ALE operations during the 4th hour. During the exercise, STAR units from the NCC, AT&T, and N-MC MARS operated voice, ALE, and BBS in support of AT&T's Network Disaster Recovery field operation conducted in Phoenix, AZ. Eight hundred fifty on-air activities were processed. Two hundred sixty-four stations, located in 46 states, the District of Columbia, and the Virgin Islands participated. Confirmation Card 014 was issued.

During CY-2001, SHARES exercises are scheduled for May, August, and October. A SHARES Exercise Notice is sent to all stations via e-mail two weeks prior to each exercise.

Program Activities

SHARES Supports AT&T NDR. Two hundred sixty-one SHARES stations and SHARES Transportable Auxiliary Radio (STAR) units supported AT&T's Network Disaster Recovery (NDR) exercise conducted in Phoenix, AZ, on October 23-25. Damage to the main switching site for AT&T's western area network caused by an earthquake served as the scenario for the exercise. AT&T relies on HF radio as one of its primary emergency communications resources, and SHARES has become a key supporter for their NDR operations. STAR units assigned to the NCC, N-MC MARS, and AT&T processed over five dozen voice, ALE, and digital messages during the field operation.

NAOC -SCN Interoperability Exercise. The National Airborne Operations Center (NAOC) and SHARES Coordination Network (SCN)



John Scoggin, AAT3BF, Newark, DE

air-to-ground voice and data HF radio interoperability exercise was conducted on February 8, 2001, from 1800Z to 1930Z. The exercise evaluated NAOC's HF interoperability and

linking capability with SHARES stations nationwide. During the 90-minute exercise, the E4B NAOC received Station Availability Reports from eighty-two stations located in 30 states, the District of Columbia, and Virgin Islands. Operators aboard the NAOC reported that SHARES demonstrated its capability to be a valuable asset to NAOC operations. COL Fenton Thomas, DOD/FEMA Liaison

Officer, commented that the exercise demonstrated the value of SHARES to NAOC operations, and showcased the professionalism of the NAOC radio operators and SHARES station personnel.

HF Radio Backs Cellular In Illinois. Mr. John Myers, II, Illinois Emergency Operations Center (EOC), reports that during a recent Illinois state nuclear exercise, cell phones became overloaded and the HF radio was used as the primary means of communications. "At one point in the exercise" he reports, "it was imperative that the Director, Illinois Emergency Management Agency, talk with the Manager of the State EOC. When attempts to use the cell phone proved futile, an HF link was established between the two. *This was only an exercise, but it pointed out the vulnerability of the cell phone system. It is hard to imagine what the consequences would have been if this were a real event.*"

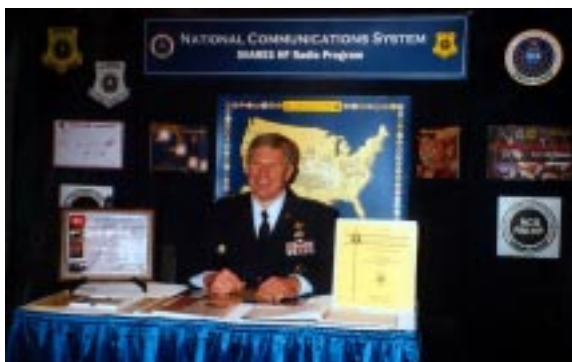


Robert Stakel, NNN0TDU, Falmouth, ME

HF E-Mail. The use of an HF path for electronic mail is on a fast-track at many Federal agencies. Generating an HF e-mail message is the same as processing any e-mail message. No radio experience is required. The message is routed from a PC to an HF radio rather than to a local Internet Service Provider (ISP). The HF e-mail message is transmitted over the air at data speeds up to 9.6 Kbps, and upon receipt, is sent to a receiving PC which, using a specially imbedded data link protocol, automatically routes the message to a local ISP for entry into the internet.

SHARES Outreach Program

The SHARES Outreach Program was established by the SHARES HF Interoperability Working Group to expand awareness of SHARES throughout the emergency planning and response community and to promote interoperability of Federal HF radio systems. An important component of the program is hosting the SHARES exhibit and presenting the SHARES briefing at emergency preparedness conferences, workshops, and seminars. The exhibit introduces potential users to SHARES and includes on-air demonstrations on the latest HF technologies. The briefing and SHARES program video document the purpose, capability and use of SHARES in support of



Lt Gen Harry Raduege, Jr., Manager, NCS, at SHARES exhibit, Tampa, FL

national security and emergency preparedness. Other key aspects of the Outreach Program include involving Federal emergency response personnel, the users of SHARES, in the planning and execution of SHARES national exercises, and in including SHARES in Federal emergency planning and operations documents. To have SHARES become a part of your emergency planning activity, contact the SHARES Project Office at 'hfmail@shareshf.com.'

Outreach Program Events CY- 2000

NCS Regional Mgrs Conference
HFIA Conference
AFCEA West 2000
AT&T NDR Exercise
NTA HF Conference
AFCEA TechNet 2000
DISA-NCS All American Day
SBC-SW Bell Conference
Navy NW Region EPLO Demo
Capitol College IT Seminar
NCS ERT Seminar
AFCEA Western Exposition
AFCEA Tampa TechNet

